COMMENTS OF COGENERATION INDUSTRIES COUNCIL

COMES NOW, Cogeneration Industries Council with comments on the project and the workshop held by the commission on August 15, 2014 on the proposed new EPA rule.

The Cogeneration Industries Council (CIC) is a division within the World Alliance for Decentralized Energy (WADE) and is comprised of members active in the cogeneration industry. WADE is the leading global organization focused on economic and environmentally-sensible decentralized energy systems for power, heating, cooling and processing. WADE, along with its affiliated chapter organizations and the Cogeneration Industries Council, work to advance deployment of a broad range of onsite energy technologies and systems using natural gas, biogas and other clean fuels in cogeneration (combined heat and power or “CHP”), trigeneration, micro CHP, district energy, district heating and cooling and microgrid systems, as well as systems that are fueled by renewable energy sources and waste heat to power. Implementation of efficient distributed generation power systems reduces the net water usage and emissions associated with typical central power generation while providing energy security and economic benefits to the user.

We appreciate this opportunity to share our perspective and comments on this important subject and reserve the right to provide additional comments and participate further as this project moves forward.


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**Introduction**

The Cogeneration Industries Council (CIC) is a division within the World Alliance for Decentralized Energy (WADE) and is comprised of members active in the cogeneration industry. WADE is the leading global organization focused on economic and environmentally-sensible decentralized energy systems for power, heating, cooling and processing. WADE, along with its affiliated chapter organizations and the Cogeneration Industries Council, work to advance deployment of a broad range of onsite energy technologies and systems using natural gas, biogas and other clean fuels in cogeneration (combined heat and power or “CHP”), trigeneration, micro CHP, district energy, district heating and cooling and microgrid systems, as well as systems that are fueled by renewable energy sources and waste heat to power. Implementation of efficient distributed generation power systems reduces the net water usage and emissions associated with typical central power generation while providing energy security and economic benefits to the user.

**Comments**

Thank you for exploring and discussing the proposed Climate Action Plan. As you well know, the Climate Action Plan proposed by the Environmental Protection Agency is a commitment to reduce national carbon pollution in the range of 17 percent below 2005 levels by 2020 and the key to achieving this goal will be flexible carbon pollution standards that build on the progress that has already been made by each individual state. While there are many opinions associated with the proposed rule it is clear that any path to compliance must provide the reliable and affordable electric power needed to sustain a vibrant economy.

The CIC believes that the path to complying with the proposed rule is through the deployment of more cogeneration because the flexibility inherent in the proposed rule allow states to select approaches that advantage their own industries and are most consistent with their available energy resources. Cogeneration, also known as combined heat and power or “CHP”, does advantage Texas and is truly consistent with our available energy resources.

Cogeneration is a form of distributed generation and is best described as the simultaneous production of electricity and heat. With cogeneration electricity is generated and the waste heat is subsequently captured from the process rather than dumping it into the air or into a body of water like a typical power plant. The captured heat energy can be used for an industrial process or for satisfying the heating and cooling needs of a building. The heat can also be used to generate additional electricity. With cogeneration (also referred to as “combined heat and power” or CHP) the energy contained in the fuel is maximized, and the fuel most commonly used is natural gas.

Texas’ leading industries, such as chemical processing and refining, need heat and where these or other concentrations of manufacturing facilities are located are typically the same locations where cogeneration facilities can best provide heat and power. Many other facilities ranging from universities and hotels to hospitals, residential towers and data centers can also implement cogeneration systems to efficiently heat and cool their facility while producing their own reliable and secure power around-the-clock.
Currently, Texas has a capacity to generate slightly more than 75,000 megawatts (MW) of power. A 2008 analysis by the Public Utility Commission titled “Combined Heat and power in Texas: Status, Potential and Policies to Foster Investment” suggest that there is potential for an additional 13,400 megawatts (MW) of new cogeneration power by year 2023. If all of this potential were realized the total capacity from cogeneration in the state would reach more than 30,000 MW, but this number could be higher because, as a result abundant supplies of shale natural gas, manufacturers and chemical processors are expected to make $50 billion to $75 billion in new investments in the state over the next five to 10 years.

Combined heat and power systems deliver positive environmental impacts that cannot be ignored. A report completed by the U.S. Department of Energy in 2011 titled “The Value of Increasing Natural Gas Fueled Combined Heat and Power from 20 to 35 Percent of Total Electricity Consumption in Texas” explores the benefits of increasing the use of natural gas fueled CHP across the state. This DOE report reveals how CHP is a viable solution for adding energy reliability while improving air quality and dramatically reducing water used for power production. The report finds that increasing CHP from 20 to 35% of total electricity consumption in Texas would:

- Increase natural gas consumption by 533 billion cubic feet per year - worth an estimated $2.3 Billion to producers at current prices.
- Lower carbon dioxide emissions by 81 million tons per year - the equivalent of removing more than thirteen million cars off Texas' roads.
- Lower sulfur dioxide emissions by about 384 thousand tons per year - an amount equivalent to retiring twenty-one 500 MW coal plants.
- Lower nitrogen oxide emissions by about 137 thousand tons per year - an amount equivalent to retiring twenty-two 500 MW coal plants.
- Lower annual water consumption by about 25 billion gallons per year - an amount equivalent to the water used by ten 500 MW coal plants each year.

Additional economic impacts from the deployment of more CHP will be realized as most of the component parts used in cogeneration systems are built or assembled in Texas, and the installations are designed by Texas' engineers and ultimately constructed by skilled workers, pipefitters and welders.

For a variety of reasons the installation of cogeneration systems in Texas has stalled. To help push distributed cogeneration projects further the regulations surrounding project permitting and the standby charges applied to system owners for the rare, and often scheduled, times that power from the grid is needed should be examined and reformed.

Perhaps the biggest gain to be made is through implementation of a renewable portfolio standard-like concept aimed at implementing cogeneration projects. Ever since the Texas Renewable Portfolio Standard was created in 1999, wind power capacity in Texas has more than quadrupled to 12,355 MW leading all states in the nation. This same type of policy applied to cogeneration could add more generation to the grid than what we currently have from installed wind, but the new cogeneration added would be at the exact locations where the energy is needed while boosting grid security and reliability because cogeneration systems can operate all day every day and their power production can be dispatched if needed.

**Conclusion**

The proposed Climate Action Plan will incite a wide variety of ideas, opinions and implementation cost estimates. While considering this influx of information it is important to remember that CHP systems using Texas' abundant natural gas resources offer proven energy efficiency and emission reduction benefits along with impressive water savings and economic impacts. The 2010 report by the Texas Comptroller titled “No Regrets Greenhouse Gas Emission Reduction Strategies for the State of Texas” states that the reduction in carbon
dioxide emission generated from the existing 17,000 MW of CHP in operation statewide is estimated to be 50 million metric tons per year. This figure clearly illustrates that CHP is an effective and environmentally-sensible energy option that has helped Texas meet air quality goals while preserving the affordable electric power needed to sustain a vibrant economy.

The CIC strongly suggests that any plan crafted in the near future to reduce greenhouse gases include bold strategies and policy changes such as those identified in these comments in order to foster the deployment of more CHP for the betterment of Texas.

Respectfully submitted,

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